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Smith

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(54) **GROOVE TRAP APPARATUS FOR COMBUSTION AND COMPRESSION MACHINERY**

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See application file for complete search history.

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(57) **ABSTRACT**

A combustion system and apparatus is disclosed. The apparatus employs a groove-shaped combustion area and a trap composed of a lid and a door. The lid is disposed in communication with the trap and is configured to slide within and over the groove-shaped combustion area during use. Combustion occurs within the groove-shaped combustion area, pushing the trap, whereby a rotor is forced to rotate, conveying power from a combustible material to perform work. As a corollary, the apparatus may be configured for use in the field of air compression and air decompression. Multiple groove-shaped combustion areas may be configured in a parallel or series orientation. Gas compression/decompression only utilizes a single groove, whereas combustion preferably utilizes a compression groove and a combustion groove.

11 Claims, 9 Drawing Sheets

